

IN THE CLAIMS

1. (cancelled).

2. (currently amended) A digital signal processing apparatus according to claim 18, wherein said the decoding means program decodes operates on said the digital video signal by according to an MPEG system process.

3. (currently amended) A digital signal processing method, comprising:

an input step of inputting an encoded digital video signal;

accessing a decoding program for decoding the encoded digital video signal from a program memory;

a decoding step of decoding executing the decoding program to decode the encoded digital video signal in a decoding operation to thereby generate said a decoded digital video signal inputted by a process in said input step by software as a plurality of frames;

a first storing step of storing the decoded digital video signal decoded by a process in said decoding step by in a buffer as data an amount corresponding to a the plurality of access units frames; and

a managing step of managing an outputting order of said digital signal of the access units stored by a process in said first storing step by storing management data in an a FIFO format, the management data indicating an output order of the plurality of frames;

wherein if the decoding operation on the encoded digital video signal is not completed within one frame period, the decoding operation is continued in the following frame period.

4. (currently amended) A ~~providing storage~~ medium for ~~providing storing~~ a computer-readable program for allowing a digital video signal processing apparatus to execute ~~processes~~ a decoding operation, wherein said process ~~the~~ program ~~comprise~~ comprising:

~~an input step of inputting an encoded digital video signal;~~

~~accessing a decoding program for decoding the encoded digital video signal from a program memory;~~

~~a decoding step of decoding executing the decoding program to decode the encoded digital video signal in the decoding operation to thereby generate said a decoded digital video signal inputted by a process in said input step by software as a plurality of frames;~~

~~a first storing step of storing the decoded digital video signal decoded by a process in said decoding step by in a buffer as data an amount corresponding to a plurality of access units frames; and~~

~~a managing step of managing an outputting order of said digital signal of the access units stored by a process in said first storing step by storing management data in an a FIFO format, the management data indicating an output order of the plurality of frames;~~

~~wherein if the decoding operation on the encoded digital video signal is not completed within one frame period, the decoding operation is continued in the following frame period.~~

5-7. (cancelled)

8. (new) A digital video signal processing apparatus, comprising:

means for inputting an encoded digital video signal;
means for storing a decoding program for decoding the encoded digital video signal;

processing means operable to execute the stored decoding program to decode the encoded digital video signal and to generate a decoded digital video signal as a plurality of frames in a decoding operation;

buffer means for storing the decoded digital video signal as data corresponding to the plurality of frames; and

FIFO means for storing management data indicating an output order of the plurality of frames;

wherein if the decoding operation on the encoded digital video signal is not completed within one frame period, the decoding operation is continued in the following frame period.

9. (new) The digital video signal processing apparatus of claim 8, wherein the buffer means comprises a plurality of buffer areas, and the management data indicating the output order of the plurality of frames comprises management identifiers of the plurality of buffer areas.

10. (new) The digital video signal processing apparatus of claim 9, wherein the management data is stored in the FIFO means in the output order of the plurality of frames.